PART V

Crops

Major Crops

Because of the importance of livestock, a major part of the cropland in Okanogan County is used to grow hay for cattle and sheep. Altogether, the 58,550 acres of hay land represented 55 percent of the harvested cropland in 1954, according to the Census of Agriculture. Grains accounted for 34,736 acres or 33 percent of the harvested cropland in 1954. Third in importance in acreage was fruit with 12,525 harvested acres or 12 percent of the harvested cropland. The two major individual crops were wheat, 26,100 acres and alfalfa, 26,000 acres. Small grains cut for hay covered 20,820 acres. These three crops and fruit accounted for 80 percent of the harvested cropland in Okanogan County during 1954. However, in terms of value, apples are the most important crop.

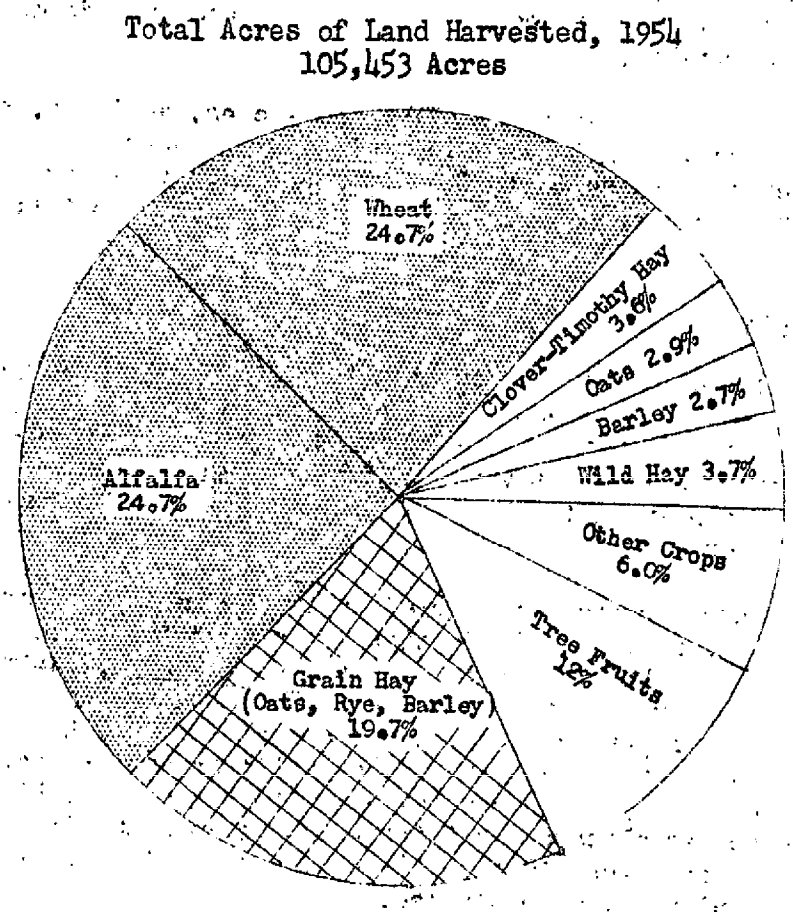

Figure 9.- Percent of Total Cropland in Leading Crops Okanogan County, 1954. (Based on U.S. Census of Agriculture, 1954)

Crop Trends

Changes within a farming region are reflected by the crop history of the region. In Okanogan County the use of marginal dryland to produce grain has declined. Almost all grain with the exception of corn is grown on dryland. The acreage of every grain crop except corn has decreased since the 1940's. In 1954 oats were down to almost half their peak acreage. Barley was down to less than one-half, and rye was only one-fifth of its peak. Wheat, mainly because of the Federal Acreage Allotment Program, was down to about two-thirds its peak acreage which occurred in 1940. Also down in the 1950's were acreages of berries and potatoes. In fruits there have been increases in bearing trees producing apples and pears but declines in bearing peach, apricot, cherry and plum trees. Grapevine plantings have decreased. Alfalfa, clover-timothy and silage have increased, while grain hay and wild hay acreages have tended to decline.

Total hay production has increased but changes have occurred in types grown. Decreased acreages came chiefly in small grains cut for hay and in wild hay. Since 1939 alfalfa hay has increased almost 12,000 acres with a peak of 26,700 acres during 1955. Clover and timothy has more than doubled, reaching a peak of 4,300 acres in 1951. Thus, the trend has been toward a decrease in cash crops and an increase in livestock feed in the form of hay. This has mainly been brought about by the more favorable livestock market in recent years. As grain acreage decreased there has been abandonment of marginal land for grain production.

There has been some abandonment of peaches, apricots, cherries and plums principally because of the problems of winter injury and spring freezes. The actual acreage decrease in fruit orchards was only 317 acres less in 1954 than in 1949, but decline in tree numbers of some of the soft fruits was considerable.

Wheat Farming

For many years the most important crop from the acreage standpoint has been wheat. Wheat is grown almost entirely on dry lands by use of the summer-fallow dry farming system. Only a small amount is irrigated. Acreage planted to spring and winter wheat vary but are generally about equal. The county ranked fifteenth among the 39 counties of the state in wheat acreage in 1954 with 26,100 acres.

The planted acreage has varied from a low of 5,000 acres in 1949 to a high of 36,000 acres in 1949. Production has ranged from 11,000 bushels in 1940 to a peak of 928,000 bushels in 1948. At the same time, variations in climatic conditions and fertilization practices have resulted in yields ranging from a low of 11 bushels per acre in 1949 to a peak of 27 bushels per acre in 1948. In Okanogan dry land wheat farming, climatic conditions have an important effect. The year 1948 was generally a wet year while 1949 was quite dry. Wheat acreage was already declining prior to 1954 but it declined farther in 1954 and 1955 as a result of the Federal Wheat Allotment Program. In 1955 only 24,400 acres of wheat were planted.

Both spring and winter wheat are planted. Winter wheat acreage in 1954 totaled 14,475 acres while spring wheat totaled 11,521 acres. In recent years

Table 14.- Wheat and Corn: Acreage, Yield and Production
Okanogan County, 1939-1956

Year	All Wheat			Corn (for grain)		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	19,300	13.1	550,100	440	28.5	12,540
1940	5,000	22.0	111,000	380	32.1	12,200
1941	20,500	19.4	397,700	380	35.0	13,300
1942	15,500	19.0	294,500	350	41.1	14,380
1943	15,300	19.0	290,000	310	35.9	11,140
1944	22,080	16.2	356,700	190	33.0	6,270
1945	30,600	13.6	415,200	150	42.7	6,400
1946	32,500	18.2	591,600	150	45.3	6,800
1947	33,000	17.0	562,500	130	44.1	5,730
1948	34,500	26.9	928,000	100	46.0	4,600
1949	36,000	11.4	408,600	290	33.9	9,820
1950	31,500	14.2	447,400	210	35.2	7,390
1951	35,300	14.6	517,100	230	36.0	8,280
1952	31,500	17.7	556,000	250	42.0	10,500
1953	30,200	19.3	582,000	310	39.0	12,100
1954	26,100	22.5	587,000	350	38.0	13,300
1955	24,400	17.1	416,400	330	47.0	15,500
1956	21,600	23.0	497,500	Not available		

Source: U.S.D.A., AMS, Agric. Estimates Division
State of Washington

Table 15.- Spring Wheat and Winter Wheat
Okanogan County, 1939-1956

Year	Spring Wheat			Winter Wheat		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	7,700	12.5	96,200	11,600	13.5	157,100
1940	12,000	8.5	102,000	5,000	22.2	111,000
1941	9,900	18.6	184,000	10,600	20.2	213,700
1942	9,500	16.5	156,500	6,000	23.0	138,000
1943	13,400	19.4	260,000	1,900	15.8	30,000
1944	16,900	15.7	266,080	5,180	17.5	90,620
1945	21,000	12.0	252,000	9,600	17.0	163,200
1946	14,600	16.0	233,600	17,900	20.0	358,000
1947	18,000	15.5	279,000	15,000	18.9	283,500
1948	16,000	16.0	256,000	18,500	36.3	672,000
1949	22,000	10.3	226,600	14,000	13.0	182,000
1950	18,500	18.0	333,000	13,000	8.8	114,400
1951	18,300	12.0	219,600	17,000	17.5	297,500
1952	11,000	17.0	187,000	20,500	18.0	369,000
1953	15,000	16.0	240,000	15,200	22.5	342,000
1954	13,300	22.0	292,600	13,800	23.0	294,400
1955	12,000	13.0	156,000	12,400	21.0	260,400
1956	20,900	23.0	480,700	700	24.0	16,800

Source: U.S.D.A., AMS, Agric. Estimates Division
State of Washington

there has been more preference for winter wheat because winter wheat generally out-yields spring wheat. In most years there is enough fall moisture for germination of winter wheat. Snow cover is usually sufficient to protect winter sprouts against extreme cold temperature. Fields of winter wheat that may be damaged by winter-kill, erosion or other climatic causes are generally reseeded to spring wheat. A total of 414 acres of wheat was reported as irrigated by the Census of 1954. Spring wheat under irrigation yielded 31 bushels per acre, while winter wheat under irrigation yielded only 14 bushels per acre. Wheat as a cash crop was grown on over 200 farms in 1954. A total of 94 percent of the winter wheat and 85 percent of the spring wheat was sold from the farms where it was grown in that year.

Okanogan County farmers have experimented with numerous varieties to get higher yields. In 1955 soft white club wheats made up 32 percent of the crop. Elgin was the leading variety with 24 percent. Common-white soft wheats made up 50 percent of the crop. Baart was the leading variety followed closely by Idaed. Soft-red winter wheat of the Jones Fife variety, and hard-red winter wheats of the Turkey and Tenmarq varieties are minor types grown.

Table 16.- Varieties of Wheat Grown in Okanogan County, 1955

Classes and Varieties of Wheat	Production (bushels)	Percent of Total Crop
White Club Wheats		
Elmar	23,800	5.7
Elgin	101,200	24.3
Hymar	10,000	2.4
Common-White Wheats		
Baart	58,300	14.0
Golden	43,499	10.4
Idaed	54,000	13.0
Marfed	34,000	8.2
Henry	9,800	2.5
Major Bluestem		1.8
Hard-Red Winter Wheats		
Turkey	40,000	9.6
Tenmarq	12,800	3.1
Soft-Red Winter Wheats		
Jones Fife	21,500	5.2
Total all classes and varieties	416,400	100.0

Source: U.S.D.A., AMS, Agric. Estimates Divn.
State of Washington

Oats, Barley and Rye

Oats are an important feed grain in the county. Nearly one-half of the crop is kept on farms for feed. Acreage has fluctuated considerably over the years. In general, oat acreage trended upward until 1944 when a peak acreage of 6,000 acres was reached, then declined to a low of 2,660 acres in 1949. Since then, acreage has ranged about 3,000 acres. Yields have been good with a high of 29 bushels per acre in 1943 and a low of 19 bushels per acre in 1940 and 1949. A total of 118 of the county's farms grew oats in 1954.

Table 17.- Oats and Barley: Acreage, Yield and Production
Okanogan County, 1939-1955

Year	Oats (grain)			Barley		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	4,600	21.0	96,600	1,940	19.0	36,900
1940	4,800	19.0	91,200	3,630	20.0	72,600
1941	4,000	28.0	112,000	3,300	29.0	95,700
1942	5,700	27.0	153,900	4,500	34.0	153,000
1943	5,300	29.0	153,700	5,200	33.0	171,600
1944	6,000	24.5	147,000	3,500	29.0	191,500
1945	4,700	28.0	131,600	2,100	29.5	62,000
1946	4,600	25.0	115,000	1,850	29.0	53,600
1947	3,600	28.0	110,800	2,250	25.0	56,300
1948	4,100	24.0	98,400	3,160	29.0	91,700
1949	2,660	19.0	50,560	2,250	18.5	41,600
1950	2,700	23.5	63,530	2,400	26.0	62,400
1951	3,100	26.0	80,600	2,050	28.5	58,400
1952	3,000	24.0	72,000	2,100	28.0	58,800
1953	2,720	27.0	73,400	2,000	32.0	64,000
1954	3,100	24.0	74,400	2,900	24.0	69,700
1955	3,800	25.0	95,000	2,000	23.0	46,100

Source: U.S.D.A., AMS, Estimates Division
State of Washington

Table 18.- Rye: Acreage, Yield and Production
Okanogan County, 1939-1955

Year	Rye		
	Acreage (acres)	Yield (bushels per acre)	Production (bushels)
1939	3,400	8.9	30,200
1940	3,470	12.9	44,800
1941	5,200	15.9	82,500
1942	5,500	14.4	79,100
1943	6,980	10.0	69,500
1944	6,600	13.1	86,600
1945	6,640	12.3	82,000
1946	4,550	12.5	56,700
1947	4,720	9.5	44,900
1948	6,700	12.5	83,600
1949	2,230	7.9	17,700
1950	4,220	9.5	40,100
1951	2,460	11.1	27,300
1952	1,800	8.3	15,000
1953	1,450	10.5	15,200
1954	1,100	11.0	12,100
1955	1,400	10.0	14,000

Source: U.S.D.A., AMS, Estimates Divn., State of Washington

Barley is another popular feed grain. Only about 50 percent of the barley crop was sold from the farms where it was grown in 1954. The trend in acreage has been about the same as in oats except that it has continued to decline, going down to 2,000 acres in 1955. Barley yields have been generally higher than oat yields. There were 101 farms growing barley in the county both in 1949 and 1954.

Rye has followed a trend similar to that of barley. It reached a low of 1,100 acres in 1954 after a peak of almost 7,000 acres during 1943. About 50 of the county's farms grew rye in 1954 and they sold approximately two-thirds of the crop. Rye yields have ranged from a low of 8 bushels per acre in 1949 to a peak of 16 bushels per acre in 1941. Grains grown together and threshed as a mixture amounted to 1,120 acres on 32 farms during 1954.

Hay Crops and Silage

Hay is the most important crop in terms of acreage harvested. During 1954 hay crops of all types were harvested from 55 percent of the harvested cropland or 58,550 acres. Alfalfa in the last few years has become the equal of wheat in acreage. The trend in alfalfa acreage was upward from 1939 to a peak of 15,800 acres in 1942. Acreage then declined to a low of 12,900 acres in 1945. Since that time the acreage has increased to a new peak of 26,700 acres in 1955. Alfalfa was grown on 934 of the county's farms in 1954. Most of the alfalfa was used on the farm where it was grown but only about one-tenth of the production in that year was sold. A total of 636 farms irrigated alfalfa in 1954 harvesting 10,410 acres.

The second most important hay crop is small grains cut for hay, occupying twenty percent of the harvested cropland, or 20,820 acres. Almost all of this crop is consumed on the farms where grown. Only 446 farms grew small grains for hay in 1954. Of these, 85 farmers irrigated 1,039 acres of small grains for hay. Wild hay has generally been the third most important hay crop. Some 4,014 acres or 4 percent of the harvested cropland were grown on 90 farms in the county in 1954. Wild hay cut dropped 2,800 acres between 1949 and 1954.

Table 19.- Clover-Timothy Hay and Alfalfa Hay
Acreage, Yield and Production
Okanogan County, 1939-1955

Year	Clover and Timothy Hay			Alfalfa Hay		
	Acreage (acres)	Yield (tons per acre)	Production (tons)	Acreage (acres)	Yield (tons per acre)	Production (tons)
1939	1,650	1.4	2,300	14,900	2.4	35,700
1940	1,490	2.0	3,000	15,000	2.9	43,800
1941	1,900	1.8	3,400	14,700	2.6	38,200
1942	1,700	1.4	2,440	15,800	2.5	39,500
1943	1,500	.8	1,170	15,500	1.5	23,200
1944	1,300	1.8	2,300	14,300	2.1	30,000
1945	1,430	1.4	2,000	12,900	2.3	30,300
1946	1,960	1.5	2,900	13,700	2.4	33,000
1947	2,600	1.5	3,960	14,100	2.3	31,800
1948	3,100	1.6	4,900	13,100	2.6	34,000
1949	3,850	1.2	4,700	17,600	1.9	34,000
1950	4,000	1.7	6,800	20,700	2.0	41,200
1951	4,300	2.8	12,200	22,800	2.0	46,000
1952	4,100	2.3	9,300	22,600	2.0	45,800
1953	3,800	1.7	6,500	24,800	1.7	43,200
1954	3,800	1.4	5,400	26,100	2.2	57,900
1955	4,000	1.3	5,100	26,700	1.9	50,500

Source: U.S.D.A., AMS, Estimates Division
State of Washington

Timothy and clover grown alone or in mixtures for hay has generally been the fourth largest hay crop. In 1954 there were 87 farms growing 3,718 acres of timothy and clover but less than one-tenth of the crop was sold in that year.

Acreage has fluctuated greatly from a low of 1,300 acres in 1944 to a peak of 4,300 acres in 1951. Other tame hay, as classified by the census, is also fairly important. Harvested acreage has run between 3,000 to 4,000 acres on about 100 farms in the county.

Silage is becoming more important in the county. Between 1949 and 1954 the number of farms cutting grass, alfalfa, clover or small grain silage increased from 8 to 22. The acreage doubled during the period reaching 410 acres in 1954. Another 15 farms cut 138 acres of corn silage. Silage cutting has become a more common practice to acquire better quality forage and to lessen risk of rain damage to hay at harvest time in early summer and late fall.

Potatoes and Corn

Commercial potatoes are a minor crop in Okanogan County. Acreage declined from a peak of 450 acres in 1948 to a low of 150 in 1954, but then increased to 325 acres in 1956. The Census shows 488 farms growing a total of 279 acres for home and commercial use in 1954. There were 246 farms irrigating 194 acres in that year.

Table 20.- Vegetable Crops: Potatoes Okanogan County, 1948-1956 1/

Year	Potatoes	
	Acres	Prod. (tons)
1948	450	4,050
1949	425	3,700
1950	200	2,325
1951	175	1,800
1952	160	2,400
1953	160	2,500
1954	150	2,200
1955	320	3,000
1956	325	3,150

1/ Not available prior to 1948.

Corn for fodder and shelled grain is another minor crop that is fairly important. The largest acreage of corn came in 1939 with 440 acres. It decreased continually until 1948 when a low of 100 acres was reached but from that point the trend has been upward again with 330 acres of corn reported by the Washington Crop and Livestock Service in 1955. In 1954 there were 32 farms reporting a total of 200 acres of corn under irrigation. The Census reported 553 acres of corn harvested for all purposes. Some 10 farms harvested 314 acres for grain, 15 farms cut 138 acres for silage and 15 farms reported 100 acres hogged, grazed or cut for fodder.

Strawberries

Strawberries are the most important small-fruit crop in the county. Peak acreage occurred during the 1940's with 57 acres in 1944. In 1954 there were 34 acres of strawberries raised on about 45 farms. The acreage dropped off rapidly, hitting a low of 8 acres in 1953. Since 1954 there have been 10 acres grown in the county each year. About half the crop was reported as irrigated in 1954.

Table 21.- Berry Crops: Strawberries Okanogan County, 1948-1956 1/

Year	Strawberries	
	Acres	Prod. (tons)
1948	50	125
1949	50	60
1950	30	36
1951	35	45
1952	8	27
1953	10	25
1954	10	15
1955	10	15
1956	10	9

1/ Not available prior to 1948.
Source: U.S.D.A., AMS, Est. Divn., State of Washington

Tree Fruits and Grapes

Okanogan County was the third most important fruit county in Washington in 1954 with 12,525 acres of orchard. The trend in orchard acreage and number of farms reporting was generally upward until 1949. In that year 1,210 farms reported 12,842 acres. By 1954 the number of farms with orchards with 20 or more trees was down to 812 but the acreage was down to only 12,525 acres. Fruit and nut farms were the leading specialty in 1954 with 552 or 31 percent of the county's farms. In 1954 a total of 766 farms irrigated 11,930 acres of fruit, grapes and nuts. Orchards are common in the entire length of the Okanogan Valley, but most trees are in the upper valley from Okanogan to Oroville.

The income from fruit sales to Okanogan County farmers accounted for approximately 70 to 80 percent of the income from crops in the county. Apple sales alone brought income of between $7,000,000 and $8,000,000. Apples are the most important crop in the county in value of sales. There are also far more acres of apple trees than any other fruit. Okanogan ranked seventh in the United States in apples during 1954. All other fruit sales amounted to only about $100,000. Pears are the second most important fruit crop, followed by prunes, peaches and grapes in that order. Cherries and apricots are unimportant.

Table 22.- Bearing Fruit Trees
Okanogan County, 1890-1954

Year	Apples	Cherries	Pears	Prunes & Plums	Peaches	Apricots
1890	100	--	30	--	--	--
1900	27,180	1,231	2,985	6,239	7,389	1,529
1910	33,243	1,594	1,940	2,640	4,607	550
1920	562,967	5,279	8,322	2,906	9,112	575
1930	401,377	5,016	39,149	41,956	10,128	15,015
1940	485,102	8,562	22,004	4,506	11,515	6,484
1950	419,744	5,021	9,339	3,454	10,641	2,851
1954	344,447	1,608	9,897	1,180	8,803	1,629

Sources: Washington Tree Fruits, Washington Crop and Livestock Reporting Service, U.S.D.A. and Washington State Dept. of Agriculture, Cooperating 1952.
U.S. Censuses of Agriculture, 1890-1954.

Nursery and Greenhouse Products: Flowers, Bulbs and Plants

Nursery and greenhouse sales are a minor source of income in the county. Greenhouse space increased in the 1940's, but had declined by 1954 to about half the 1949 figure. Sales of horticultural specialties from farms also increased during the 1940's with $29,694 being reported during 1949. This, too, was down by 1954, being only $23,519 in that year. Acres in nurseries remained the same between 1949 and 1954. Sales increased over three times from $800 in 1949 to $2,500 during 1954.